REMARKS

At the outset, applicants would like to thank Examiner Szekely for his time and consideration of the present application during the interview with Philip DuBois and Robert Madsen on April 4, 2006.

The application has been amended in a manner believed to place the application in condition for allowance at the time of the next Official Action.

Claims 1 and 8 were amended. Claims 9, 10, 11 and 12 were added. Claims 2-4 were canceled. Claims 1 and 5-12 remain pending in the application.

Claims 1-3 and 5-8 were rejected under 35 USC 112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse the rejection.

The Official Action stated claims 1 and 8 included improper Markush language. Claims 1 and 8 have been amended to include proper Markush language.

Therefore, applicants respectfully request that the indefiniteness rejection be withdrawn.

Claims 1-3 and 5-8 were rejected under 35 USC 102(b) as allegedly being anticipated by or in the alternative under 35 USC 103(a) as allegedly obvious over WESSLING, TAJIMA et al. or SUMITA et al. Applicants respectfully traverse the rejection.

Claims 1, 5-7, 9, 10 and 12 are directed to methods of preparing an electrically conductive polymer blend. Claims 8, 9

and 11 are directed to an electrically conductive polymer blend. The claims recite the blend comprises at least two polymeric materials that form a continuous three-dimensional phase and a non-dispersing phase. An electrically conductive material containing a metal is dispersed within the continuous three-dimensional phase. The electrically conductive material has a surface tension lower than the surface tension of each of the polymeric materials, and, as recited further in claims 1 and 8, the polymeric material forming the continuous three-dimensional phase has a surface tension at least 2 mN/m lower than the surface tension of the polymeric material forming the non-dispersing phase.

None of the references offered in the Official Action teach or suggest the recited electrically conductive polymer blends having an electrically conductive material containing metal that has a surface tension lower than the surface tension of the polymeric material. Nor do any of the references disclose or suggest that the surface tension of the continuous three-dimensional phase polymeric material is at least 2 mN/m lower than the non-dispersing phase polymeric material.

As requested by the Examiner in the interview, applicants are providing surface tension data for the materials disclosed in the references with this response.

Appendix 1 (Diebold) discloses that titanium dioxide has a surface tension of around 0.35-2.07 J/m^2, which is the equivalent to 35-2000 mN/m.

Appendix 2 (Wiley) includes the surface tension date that was incorporated by reference in the present specification at page 5.

Appendix 3 (Yuchun et al.) discloses potassium titanate whiskers have a surface tension similar to nylon 6.

WESSLING teaches a continuous three-dimensional phase of polymer A, which may include EVA, PA 6 and PA 12, and a non-dispersing phase made of polymer B, which includes PBC, PA 6, PE and POM. However, WESSLING fails to disclose or suggest an electrically conductive material containing metal, as recited in claims 1 and 5-12.

TAJIMA et al. disclose a continuous phase A, which includes PBP and a non-dispersing phase C, which includes PE, and an electrically conductive material, such as titanium dioxide. As evidenced by WILEY, the surface tension of PBT is 34 mN/m and PE is 27 mN/m. As evidenced by DIEBOLD, titanium dioxide has a surface tension of 0.35 - 2.07 J/m^2, or 250 -2070 mN/m. Thus TAJIMA et al. do not teach the electrically conductive material containing a metal has a surface tension lower than the surface tension of the polymeric materials, as recited in claims 1 and 5-12.

SUMITA et al. teach a filler predominantly dispersed phase of PE and PMMA and a non-dispersing phase of PP. SUMITA et al. further teach a composition that includes potassium titanate as a possible electrically conductive material containing metal. As evidenced by WILEY, the surface tension of PE is 35, of PP is 29 and PMMA is 41. As evidenced by YUCHEN, the surface tension of potassium titanate is similar to the surface tension of nylon 6, which according to WILEY is about 38 mN/m. Thus, SUMITA et al. fails to disclose or suggest an electrically conductive material containing a metal having a surface tension lower than the surface tension of each of the polymeric materials, as recited in the claimed invention.

Therefore, not only do the references fail to anticipate the claims, they also fail to render the claims obvious. Applicants respectfully request that the anticipation and obviousness rejections be withdrawn.

In view of the present amendment and foregoing Remarks, therefore, applicants believe that the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

Philip A. DuBois

Philip A. DuBois, Reg. No. 50,696
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

PD/fb

APPENDICES:

1. Diebold, U., "The surface science of titanium oxide", Surface Science Reports 48 (2003) 53-229.

2. A list disclosed in Polymer Handbook (Wiley). Surface tension values lie between 22.6 - 52.6.

3. Yuchun, O. et al., "Interfacial interaction and mechanical properties of nylon-6 potassium titanate composites prepared by in-situ polymerization", State Key Laboratory of Engineering Plastics, Institute of Chemistry, Chinese Academy of Sciences, Beijing, 1996.